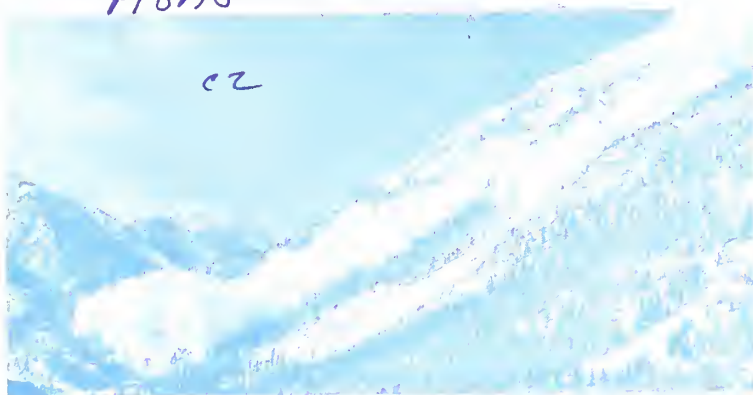


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



29C929  
A8A8



# Avalanche Notes

U.S. Forest Service  
Westwide Avalanche Network

DECEMBER 94

## Weather

December's storms favored a northern track, which brought heavy snows to Alaska and parts of Washington, California, Idaho, Montana, and Wyoming. Sites further south ended up on the lean side of normal

At Alyeska, AK, 185% of normal snow fell, it was the second highest December snow of record, and it was only the third month ever to exceed 200" of snow. Three big storms hit the area: 52" on the 3rd-5th, 42" on the 19th-23rd, and 60" on the 27th-31st. Eaglecrest, AK, saw steady snows all month.

In the Cascades of Washington, snowfall was above normal at most sites. Stevens Pass recorded 31" on the 15th-17th, 28" on the 26th-27th, and got 145% for the month. Mt. Rainier received 31" on the 1st-3rd, 24" on the 26th-27th, and wound up with 108%. Snoqualmie Pass reported 24" on the 1st-3rd, 25" on the 15th-17th, and 22" on the 26th-27th. Crystal Mt. got 92% of normal snows, while Mt. Hood Meadows, OR, was missed by the bigger storms and managed but 80%.

In the Sierra of California, Alpine Meadows and Squaw Valley recorded 180% of their December norms. A big storm raked the area on the 2nd-6th: Sugar Bowl got 60" of snow, Alpine Meadows, 57", and Squaw Valley, 52" (with 10" of water from snow and rain.) A second storm hit on the 12th-13th and dropped 27" at Alpine Meadows and 23" at Squaw Valley. Extensive avalanche cycles resulted from these two storms. Further south, Mammoth Mt. was on the fringe of these storms and got only 70% of normal December snows.

In the Intermountain area, snowfall was normal or above for the most part. In Idaho, Sun Valley recorded 140% of normal. In Montana, Big Sky got 115% while Bridger Bowl got 90%. In Wyoming, Teton Pass reported 98% of normal, while Jackson Hole, aided by measurable snow on 24 days, got 108%. The juicier storms skirted north of Utah, so that Alta and Snowbird got but 75% of normal.

In Colorado, snowfall was below normal. Aspen Mt. got 86%; Steamboat, 81%; Gothic, Monarch, and Wolf Creek, 72%; Beaver Creek, 70%; Crested Butte, 66%; Purgatory, 60%; Telluride, 51%; Vail and Winter Park, 47%; and Breckenridge, 33%. Taos, NM, finished December with 57% of normal.

## Avalanche

With almost 600 avalanches recorded, Stevens Pass, WA, had its hands full. On the 26th, the snow was exceptionally unstable as 175 avalanches ran with the thump of explosives. Crystal Mt., too, was very busy, with 325 avalanches being recorded in December. Squaw Valley and Alpine Meadows, CA, weathered two big cycles, and these neighboring sites recorded 800 avalanches in total.

In December, only eight avalanche incidents were reported westwide, an exceptionally low number. Six were minor and resulted in six people caught and two partly buried. Two of the incidents were serious and both occurred on the 17th in Washington.

On the morning of December 17, the Cascades were in the third day of a vigorous storm system, and snow had turned to rain on Stevens Pass. A midnight control mission had released several avalanches. The highway had just been closed and existing traffic was being turned around when three natural releases blocked the highway. Minutes later a fourth avalanche struck four stopped vehicles and pushed them across the highway and into the snow bank on the shoulder. Snow buried, crushed, broke the windows and filled the inside of one vehicle; broke windows and filled the inside of a second; and did lesser damage to the other two vehicles. A total of 10 occupants were caught. All were quickly dug out; seven had suffered minor injuries.

Also on the morning of the 17th at Mission Ridge, WA, two patrollers were ski cutting the top of a slope that had been hit with explosives the day before. It avalanched and buried one patroller 2 feet deep. His partner located him with a beacon and uncovered him in about 10 minutes. The victim was not breathing, and his partner had just begun mouth-to-mouth resuscitation when a second avalanche was triggered by rescuers arriving at the site. This slide buried the initial victim and rescuer 2-4 feet for 3-5 minutes before being dug out. The initial rescuer was unhurt, while the victim still showed no response other than a weak pulse. Follow-up care could not save his life; he died at the hospital after being taken off life support. This was the 4th avalanche death of the winter.

Through December, 24 avalanche incidents have been reported, resulting in 37 people caught, 22 partly buried, 3 buried, 10 injured, and 4 killed.

U.S. FOREST SERVICE  
WESTSIDE WEATHER AND AVALANCHE NETWORK  
FORT COLLINS, COLORADO

DECEMBER 1994  
SUMMARY OF WEATHER AND SNOW CONDITIONS

AREA	SNOWFALL				WATER EQUIVALENT							SNOW DEPTH				TEMPERATURE			WIND SPEED AND DIRECTION					
	TOTAL SNOW- FALL IN.	AVG DEN	MAX		TOTAL WATER IN.	MAX		NUMBER OF DAYS					MAX IN.	T E	MIN IN.	AVG IN.	MEAN MAX DEGREES F	MEAN MIN F	AVG	AVG FOR MO. MPH	6 HOUR		FASTEST HOUR MPH	D A
			IN	D		IN	D	GE	GE	GE	GE	PERIODS									GE	GE		
			IN.	E		IN.	E	.1	.2	.5	1.0	15									20	DIR.		
CENTRAL AND SOUTHERN ROCKY MOUNTAINS																								
ASPEN MOUNTAIN, COLO	32.1	.06	10	8	1.82	.67	8	6	3	1	0	40	14	26	32	30.1	12.9M	21.5M	5.9	2	0	21	260	19
BEAR LAKE, RMNP, CO	21.5	.07	5	31	1.40	.30	30	8	3	0	0	24	31	15	19	28.8	17.8	23.3	--	--	--	--	--	--
BEAVER CREEK, COLO	40.6	.07	11	14	2.94	.60	6	7	5	4	0	44	14	27	34	25.2	11.7	18.4	5.4M	1M	0M	--	--	--
BRECKENRIDGE, COLO	17.6	.07	4	31	1.26	.25	9	6	5	0	0	30	31	22	24	22.7M	8.5M	15.6M	13.8M	54M	19M	--	--	--
CRESTED BUTTE, COLO	26.0	.09	6	6	2.40	.70	6	9	6	1	0	34	8	21	28	24.4M	12.8M	18.6M	8.2M	10M	2M	--	--	--
ELDORA, COLO	8.5	--	3	31	--	--	--	--	--	--	--	12	31	8	9	31.1	5.2	18.2	--	--	--	--	--	--
GOthic, COLO	38.5	.07	8	14	2.79	.66	6	7	4	3	0	41	14	24	34	29.4	4.3	16.9	--	--	--	--	--	--
KEYSTONE, COLO	14.2	.05	2	7	.67	.15	7	5	0	0	0	24	16	19	21	28.6	9.0	18.8	8.1	4	1	--	--	--
MONARCH, COLO	32.0	.03	11	14	1.01	.25	7	5	2	0	0	35	14	21	26	29.0	11.3	20.1	14.6M	53M	33M	--	--	--
PURGATORY, COLO	29.8	.08	12	6	2.49	1.20	6	7	3	1	1	50	6	37	44	29.2	9.3	19.2	--	--	--	--	--	--
SKI COOPER, COLO	19.3	--	4	19	--	--	--	--	--	--	--	23	30	18	19	34.7M	6.9M	20.8M	--	--	--	--	--	--
STEAMBOAT, COLORADO	55.5	--	19	8	--	--	--	--	--	--	--	42	8	26	33	27.8	14.5	21.2	--	--	--	--	--	--
TAOS, NEW MEXICO	22.5	.08	8	31	1.90	.65	6	4	3	2	0	64	31	52	56	27.1M	15.0M	21.1M	--	--	--	--	--	--
TELLURIDE, COLO	20.1	.07	6	8	1.44	.40	8	5	3	0	0	36	8	27	31	24.8M	13.2M	19.0M	--	--	--	--	--	--
VAIL, COLO	28.7	.05	8	14	1.54	.38	14	7	4	0	0	36	14	25	29	27.6	11.6	19.6	6.1M	2M	0M	17	190	23
WINTER PARK S.A., CO	28.8	.06	7	14	1.65	.30	14	9	6	0	0	38	15	28	31	22.5	10.0	16.2	5.7	4	1	26	280	19
WOLF CREEK, COLO	45.2	.10	16	6	4.55	2.00	6	7	6	4	1	74	16	49	65	31.5	11.1	21.3	11.2M	31M	4M	28	20	20
INTERMOUNTAIN																								
ALTA, UTAH	65.5	.06	14	13	4.03	.95	6					78	14	58	66	32.0	11.0	21.0	8.8	14	7			
BIG SKY, MONT	55.8	--	9	3	--	--	--	--	--	--	--	45	5	34	41	25.2	11.5	18.4	--	--	--	--	--	--
BRIDGER BOWL, MONT	54.0	.08	10	4	4.10	1.00	2	8	7	4	1	66	7	54	59	31.1	15.6	23.3	13.2	58	20	32	250	19
JACKSON HOLE 1, WYO	72.5	.10	10	5	6.97	1.35	17	18	11	3	2	62	7	42	56	20.8	14.5	17.6	15.6	59	30	43	230	17
SCHWEITZER BASIN, ID	69.3	--	9	9	--	--	--	--	--	--	--	87	28	60	73	24.0	16.1	20.1	--	--	--	--	--	--
SNOWBIRD, UTAH	59.1	.05			3.07																			
SUN VALLEY, IDAHO	47.0	.09	8	4	4.33	.78	4	14	8	2	0	46	13	31	40	24.2M	10.3M	17.3M	7.8M	5M	0M	26	120	12
TETON PASS, WYO 22	60.0	.09	23	5	5.45	2.00	5	9	9	4	1	--	--	--	--	23.8	13.7	18.7	--	--	--	--	--	--
WEST COAST																								
ALPENTAL, WASH	108.3	.08	23	2	12.30	2.25	20	14	11	8	2	90	27	44	71	--	--	--	12.3M	44M	27M	68	250	18
ALPINE MEADOWS, CAL	108.0	.12	24	4	13.09	3.53	4	13	12	10	4	85	13	44	73	34.0	22.9	28.4	26.8	103	91	80	230	18
ALYESKA, ALASKA	203.0	.09	24	4	18.32	2.65	4	19	17	11	9	121	31	58	89	26.5	17.9	22.2	4.8	1	0	18	100	3
CRYSTAL MTN 1, WASH	72.2	.08	11	16	15.73	2.85	20	19	16	10	3	72	16	53	59	32.1	21.8	27.0	18.5	80	63	60	250	1
CRYSTAL MTN 2, WASH	74.3	.11	11	2	15.73	3.40	20	16	16	9	5	84	21	68	75	25.8	18.0	21.9	--	--	--	--	--	--
EAGLECREST, ALASKA	77.6	.11	11	15	8.86	2.50	15	13	12	7	2	132	20	97	117	24.4M	17.2M	20.8M	--	--	--	--	--	--
HEAVENLY VALLEY, CAL	39.5	--	10	12	--	--	--	--	--	--	--	56	13	42	47	34.5	15.4	24.9	--	--	--	--	--	--
MAMMOTH MTN, CALIF	42.0	.15	11	25	6.22	1.85	4	7	6	4	3	37	29	13	27	31.9	15.9	23.9	--	--	--	--	--	--
MT. HOOD MDWS, ORE.	66.3	.13	8	9	13.40	2.13	27	19	17	10	4	95	16	72	82	33.2	21.9	27.6	16.8	81	44	53	260	28
MT. RAINIER PARADISE	129.7	.12	18	26	25.45	3.70	20	19	18	11	8	142	26	120	130	30.6	19.8	25.2	--	--	--	--	--	--
SNOQUALMIE PASS 1-90	106.0	.13	18	2	18.65	2.21	20	19	18	12	9	78	27	49	64	31.2	22.7M	27.0M	4.7M	3M	2M	--	--	--
SQUAW VALLEY, CALIF	101.2	.15	21	4	14.84	4.25	4	10	10	9	5	130	13	77	112	32.1	21.5	26.8	27.2	99	87	61	250	18
STEVENS PASS 5E WASH	115.0	--	18	9	--	--	--	--	--	--	--	99	27	61	78	26.9M	21.1M	24.0M	11.1M	32M	17M	--	--	--
STEVENS PASS, WASH	133.0	.08	16	27	15.24	2.00	27	16	15	11	7	99	27	60	77	27.6	20.8	24.2	9.7M	29M	4M	--	--	--
SUGAR BOWL, CALIF	103.0	--	28	4	--	--	--	--	--	--	--	121	15	70	110	30.1	18.1	24.1	17.4	77	57	40	220	2

-- DATA INCOMPLETE OR MISSING

M-ONE OR MORE DAYS OF RECORD MISSING-IF AVERAGE VALUE IS ENTERED, LESS THAN 10 DAYS RECORD IS MISSING

IF M IS ENTERED IN WIND SPEED COLUMN, LESS THAN 37 6-HOUR PERIODS ARE MISSING

GE--GREATER THAN OR EQUAL TO



DECEMBER 1994  
AVALANCHE SUMMARY

-- = DATA INCOMPLETE OR MISSING  
GE = GREATER THAN OR EQUAL TO  
+ = ALSO OCCURRED ON OTHER DATES